

base claim. Applicant thanks the Examiner for indicating the allowability of claims 5-7. It is respectfully submitted that all of the presently pending claims are allowable for at least the following reasons.

Claims 1, 3, and 4 stand rejected under 35 U.S.C. § 103(a) as being obvious over United States Patent No. 5,573,298 to Walker et al. (the Walker reference) in view of United States Patent No. 6,339,369 to Paranjpe et al. (the Paranjpe reference). Applicant respectfully traverses.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), not only must the prior art **teach or suggest each element of the claim**, but the prior art must also **suggest combining the elements in the manner contemplated by the claim**. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some **suggestion or motivation**, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, **to modify or combine the references** and that, when so modified or combined, the prior art **teaches or suggests all of the claim limitations**. M.P.E.P. §2143. Applicant respectfully submits that these criteria for obviousness are not met here.

Independent claim 1 recites a device for side impact detection for a motor vehicle, which includes, *inter alia*, **a reflector** and a stiffening pipe connected to the reflector. The stiffening pipe is situated in a side section of the motor vehicle. The device of claim 1 also includes at least one sensor situated in the side section of the motor vehicle **for determining a side section deformation** that includes a distance sensor for measuring a distance to the reflector. Additionally, the device of claim 1 includes a control unit for evaluating sensor signals from the at least one sensor in which the **control unit detects a side impact** as a function of the distance.

The Office Action asserts that it would have been obvious to employ in the Walker reference the teaching of the Paranjpe reference. Specifically, the Office Action states that “[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Walker, et al to include sensors and a control unit to provide a collision warning apparatus for the vehicle.” (Office Action; page 2, line 16 to page 3, line 2). It is respectfully submitted that there is no suggestion in the prior art to modify the Walker reference in view of the Paranjpe reference in order to arrive at the

invention of claim 1. The Walker reference relates to an energy absorbing vehicle door for a motor vehicle. The Walker reference gives no suggestion of the usefulness of a combination with the retrofittable vehicle collision warning apparatus apparently discussed in the Paranjpe reference. Similarly, the Paranjpe reference provides no motivation to combine the retrofittable vehicle collision warning apparatus discussed therein with the energy absorbing vehicle door of the Walker reference. The only motivation to combine the references comes from the disclosure of the Applicant, which constitutes improper hindsight reasoning. Since there is no motivation or suggestion to combine the references, the references do not render the subject matter of claim 1 obvious.

Furthermore, Applicant respectfully submits that neither the Walker reference nor the Paranjpe reference discusses, or even suggests, a reflector. The Office Action relies on element 152 of the Walker reference as disclosing a reflector and element 130 of the Walker reference as disclosing a stiffening pipe. However, there is no indication that element 152 of the Walker reference is a reflector or includes a reflector. Plate 152 of the Walker reference may be made of plastic or metal, and apparently includes a face 154. (Walker; col. 4, ll. 45-46). Apparently, the function of this structure is even load distribution (Walker; col. 4, ll. 53-63). There is no indication in the Walker reference that element 152 reflects anything, and therefore there is no indication that element 152 is a reflector. The addition of the Paranjpe reference fails to cure this deficiency. Therefore, since a reflector is not disclosed in either of the cited references, it is respectfully requested that the rejection be withdrawn.

Additionally, the Office Action admits that the Walker reference does not teach a sensor. The Office Action asserts that this feature is taught by the Paranjpe reference. The device according to claim 1 recites **at least one sensor** situated in the side section of the motor vehicle **for determining a side section deformation**. In the device according to claim 1, the at least one sensor includes a distance sensor for measuring a distance **to the reflector**. The Paranjpe reference apparently describes a collision-warning device. Distance sensor 171 of the Paranjpe reference apparently measures the distance to an obstacle. (Paranjpe; col. 10, ll. 20-23). Therefore, the sensor of Paranjpe apparently measures distances from the vehicle in which the sensor is located to an obstacle that is outside the vehicle. In contrast, the device according to claim 1 measures a distance in the side section between the sensor and a reflector that is also situated in a side section of the motor vehicle. Therefore, both the sensor and the reflector are in the side section of the vehicle. Therefore the sensor according to the Paranjpe reference does not disclose, or even suggest, the sensor according to claim 1. Since

none of the cited references disclose, or even suggest, this feature of claim 1, it is respectfully requested that the rejection be withdrawn.

Further, although the Office Action admits that the Walker reference does not teach a control unit, the Office Action asserts that this feature is taught by the Paranjpe reference. The device according to claim 1 recites a control unit for evaluating sensor signals from the at least one sensor. The control unit of claim 1 detects a side impact as a function of the distance. None of the cited references disclose a control unit that detects a **side impact**, much less a control unit that detects a **side impact as a function of a distance**, as recited in claim 1. Therefore, for at least the foregoing reasons, it is respectfully submitted that none of the cited references, whether alone or combined, disclose, or even suggest, this feature of claim 1. Therefore, since the control unit is not disclosed in either of the cited references, it is respectfully requested that the rejection be withdrawn.

Claims 3 and 4 depend from claim 1 and are therefore allowable for at least the same reasons as claim 1 is allowable.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being obvious over the Walker reference in view of United States Patent No. 6,209,909 to Breed (the Breed reference). Applicant respectfully traverses.

Claim 2 is allowable for at least the same reasons as claim 1 is allowable as described above. The addition of the Breed reference fails to cure the deficiencies noted above with respect to the Walker and Paranjpe reference as discussed with respect to claim 1. Specifically, the Breed reference does not disclose, or even suggest, a **reflector**. Further, the Breed reference does not disclose, or even suggest, a sensor that determines a **side section deformation**. The Breed reference apparently relates to a sensor that anticipates a vehicle collision. There is no indication that the sensor in the Breed reference measures a deformation, as recited in claim 1. Further, since the Breed reference does not disclose a reflector, the sensor in the Breed reference does not include a **distance sensor for measuring a distance to the reflector**. Additionally, since the Breed reference apparently relates to an anticipatory sensor system, the Breed reference does not disclose a **control unit detecting a side impact** as a function of the distance.

For at least the reasons discussed above, withdrawal of the rejections under 35 U.S.C. §103(a) with respect to claims 1-4 is hereby respectfully requested.

Allowable claims 5 and 7 have been amended to include the limitations of their base claims, and therefore the objections to these claims should be withdrawn. Claim 6 depends from claim 5 and is therefore in condition for allowance.

It is respectfully submitted that new claims 8-10 are allowable over the cited references. New claim 8 depends from allowable claim 7 and is therefore also allowable.

New claim 9 recites that the at least one sensor is protected from interference by outside light. It is respectfully submitted that none of the cited references disclose, or even suggest, this feature. Therefore, it is respectfully submitted that claim 9 is allowable.

New claim 10 recites that the distance decreases in response to the side impact. It is respectfully submitted that none of the cited references disclose, or even suggest, this feature. Therefore, it is respectfully submitted that claim 10 is allowable.

CONCLUSION

Applicant respectfully submits that all of the pending claims of the present application are now in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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AMENDMENT VERSION WITH MARKINGS

IN THE CLAIMS:

Claims 3-5 and 7 have been amended without prejudice as follows:

3. (Once Amended) The device according to claim 1, wherein a surface of the stiffening pipe is [a] the reflector.

4. (Once Amended) The device according to claim 1, wherein the stiffening pipe is connected to a metal plate as [a] the reflector.

5. (Once Amended) A [The] device [according to claim 1,] for side impact detection for a motor vehicle, comprising:

a reflector;

a stiffening pipe connected to the reflector, the stiffening pipe being situated in a side section of the motor vehicle;

at least one sensor situated in the side section of the motor vehicle for determining a side section deformation, the at least one sensor including a distance sensor for measuring a distance to the reflector; and

a control unit for evaluating sensor signals from the at least one sensor, the control unit detecting a side impact as a function of the distance;

wherein, after a start of operation of the device, the at least one sensor carries out an initial measuring procedure to adjust a transmitting power.

7. (Once Amended) A [The] device [according to claim 1, further] for side impact detection for a motor vehicle, comprising:

a reflector;

a stiffening pipe connected to the reflector, the stiffening pipe being situated in a side section of the motor vehicle;

at least one sensor situated in the side section of the motor vehicle for determining a side section deformation, the at least one sensor including a distance sensor for measuring a distance to the reflector;

AMENDMENT VERSION WITH MARKINGS

a control unit for evaluating sensor signals from the at least one sensor, the control unit detecting a side impact as a function of the distance; and
a plausibility sensor situated in the side section.

New claims 8-10 have been added as follows.

8. (New) The device of claim 7, wherein the plausibility sensor includes an accelerometer.
9. (New) The device of claim 1, wherein the at least one sensor is protected from interference by outside light.
10. (New) The device of claim 1, wherein the distance decreases in response to the side impact.